STANFORD UNIVERSITY MEDICAL CENTER
STANFORD, CALIFORNIA 94305

DEPARTMENT OF BIOCHEMISTRY

PAUL BERG
Jack, Lulu and Sam Willson
Professor of Biochemistry

July 2, 1976

Honorable Mayor Alfred E. Vellucci and
the Honorable City Council of Cambridge
City Hall
Cambridge, Massachusetts

Gentlemen:

Having been a pioneer in developing the recombinant DNA methodology as well as a leader amongst the scientists who first expressed concern over the potential risks of this research, I feel obliged to comment on the discussions of this matter now before you.

Few scientists, anywhere, deny that recombinant DNA research will revolutionize our understanding of basic biologic processes; and, there is little doubt that in time this increased knowledge will yield far-reaching benefits for medicine, industry and agriculture. Admittedly, the pursuit of these goals carries with it potential risks but, irrespective of the claims made by the research's critics, the extent and the certainty of these risks are largely conjectural. To state that the benefits are tenuous and hypothetical while the risks are real and immediate is to engage in sophistry bordering on dishonesty.

I believe that the recently promulgated guidelines for recombinant DNA experimentation are more stringent than any scientific evidence indicates is needed to ensure safety. The required procedures are not "smokescreens"; P3 physical containment was designed specifically to control accidental dispersal and human error and there is documented experience on which to judge the efficacy of these facilities. Moreover, most

experiments have an additional requirement which mandates the use of specially constructed organisms that cannot survive in natural environments. The two forms of containment complement each other and provide an effective barrier to dissemination of the experimental organisms.

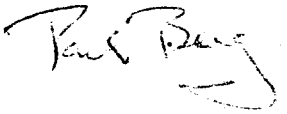
There are those who propose a ban on this research because of the use of E. coli. These individuals advocate waiting until safer organisms are developed. But, predictions about the existence of rare and fastidious safer organisms that could replace E. coli are highly speculative. Most scientists who are familiar with the genetic chemistry of E. coli K12 believe that the effective biological containment can be achieved by such specially modified organisms.

Many scientists and laymen alike are deeply concerned that the Cambridge City Council is considering suppression of a serious and responsible search for new knowledge. The implications of such action are ominous indeed. What additional forms of legitimate and worthy inquiry - scientific, artistic, or political - will self-appointed vigilante groups next condemn on the pretext of imagined risk? Consider carefully which people certain scientists speak for and whose message they carry.

An alternate to suppression is cooperation. Would it not make more sense for the Cambridge City Council to join with its responsible scientific community in efforts to monitor compliance with the guidelines and ensure the safety of the scientists and the public at large? Such an action could lead to a partnership for progress rather than a conspiracy of repression. Cooperative ventures might even alleviate the traditional tensions of the town-gown relationship.

I am hopeful, yes even optimistic, that you will hear reason, not rhetoric, and act wisely rather than precipitously.

Respectfully,



PB:ab